**Write a program that does the following:**

* Declare 2 FILE pointers( fpi, fpo).
* Open **inupt.txt** file in read mode and let **fpi** points to it. The file must have some text in the format as shown below in the **sample input.txt .**
  + **WARNING:** If the file doesn’t exist, NULL is returned.
* Open **output.txt** file in writing mode and let **fpo** points to it.
  + **WARNING:**  If a file with the same name already exists its content is erased and the file is considered as a new empty file.
* Prompt the user to enter a character to find the number of assurances.
* Use the function ***NumOfCharacter*** to determines the frequency (the number of occurrence) of a given character in each line in the input file **input.txt** together with the total frequency ( the total number of occurrences)of the character.

**void NumOfCharacter(FILE\*,FILE\*, char ch , char \*line);**

* The output must be stored in the text file **output.txt** in the format given in the sample program run below.The last output line contains the total frequency of the character.
  + **WARNINIG:** If the input character is not found, the output in the text file will be the message: “The character is not found “);
* Close all files.

**Note:**

* + Your program should be general and works for any input character and any input file.
  + Assume the maximum number of characters in al ine of the text file is 80.

**Sample “input.txt” Sample “output.txt”**

Line#: 2, Frequency of s = 1

Line#: 4, Frequency of s = 2

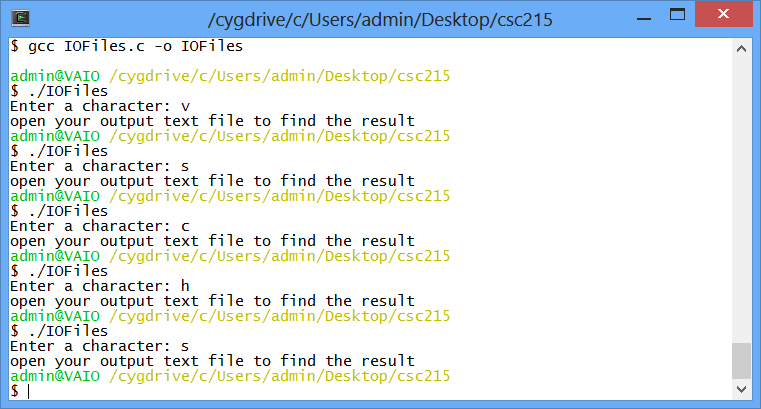
Total frequency of s = 6

This is the sample run

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Lab 8

This is input file

**Sample program run**

**Answer:**

#include <stdio.h>  
#include <stdlib.h>  
#include <string.h>  
void NumOfChar(FILE \*, FILE \*,char ch,char \*line);  
int main(void)  
{  
 FILE \*fpi, \*fpo;  
 char line[80], ch;   
 char \*pline;  
 pline= line;   
 fpi= fopen ("input.txt","r");  
 if (fpi==NULL)  
 {  
 printf("Error in opening inupt file");  
 exit(1);  
 }  
 fpo=fopen("output.txt", "w");  
 printf("Enter a character: ");  
 scanf("%c", &ch);  
 NumOfChar(fpo,fpi,ch,pline);  
 printf("open your output text file to find the result");  
 fclose(fpi);  
 fclose(fpo);  
 return 0;  
}  
void NumOfChar(FILE \*fpo, FILE \*fpi,char ch,char \*line)  
{  
 int lineNum = 0 , totalFrequency=0, lineFrequency=0;  
  
while(fgets(line,80,fpi) != NULL)   
 {  
 lineNum++;  
 lineFrequency=0;  
 int k ;   
 for(k=0; k<strlen(line);k++)  
 if (ch== line[k])  
 lineFrequency++;  
 if(lineFrequency!=0 )  
 {  
 fprintf(fpo,"Line#: %d, Frequency of %c = %d\n",lineNum, ch, lineFrequency);  
 totalFrequency+=lineFrequency;  
 }  
 }//end while  
 if (totalFrequency!=0)   
 fprintf(fpo,"Total frequency of %c = %d ",ch, totalFrequency);  
 else  
 fprintf(fpo,"The character %c is not found",ch);  
}//end function